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ABSTRACT

A 12-hour curriculum/methods block designed to lead elementary education teacher candidates through a constructivist, integrated model of teaching and learning is outlined. This block is part of a graduate level program that leads to licensure and a master's of Curriculum and Instruction in Curriculum and Instruction called Initial Teacher Education (ITE). The major concepts of the course are: intelligence as a capacity to learn, diversity, constructivism, integration, holistic approach, inclusion, technology as a tool, collaboration, and reflection. Activities to build knowledge and understanding include developing a lesson plan based on research of a downtown urban community, and an extended classroom activity allowing for real life application of earth science, mathematics, social studies, expressive arts, and literacy. Activities to apply curriculum content include an extended classroom activity in which teacher candidates plan an integrated day based on the content of Colorado state history from 1850 to 1880 and planning a thematic unit using curriculum guides and standards, literature, and various technologies. Based on their understanding of how children learn and how differences among children impact learning, candidates develop curriculum, instruction, and assessment to meet the needs of all their students. (Contains 14 references.) (LH)

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ED 410 207

Preparing Teachers For Tomorrow: A Constructivist Approach

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

PREPARING TEACHERS FOR TOMORROW:
A CONSTRUCTIVIST APPROACH

I. Introduction

The Initial Teacher Education (ITE) program is a graduate level program that leads to licensure and a masters of Curriculum and Instruction. We are a team of five faculty who teach two six hour courses that comprise a twelve hour curriculum/methods block for elementary teacher candidates (TCs) in the licensure part of the program. This presentation will describe how the block course has been designed to lead students through a constructivist, integrated model of teaching and learning. Information on the program and course will be presented followed by specific examples of how activities in the course engage students in building background knowledge and understanding that lead them to be able to design their own curriculum complete with literacy and content instruction, use of technology and assessment. The curriculum/methods course is provides opportunities for TCs to apply knowledge and understanding directly to their work in the schools.

II. History and Background of Course Development

As part of the program, several faculty members are assigned to teach a twelve hour curriculum/methods block that had previously been presented in six, 3 credit hour courses. The planning phase began in January 1994 based on the recognition by the professors involved that educational researchers and theorists are increasingly focusing on the connections, rather than the distinctions, between content, or *what* is taught, and instruction, or how learning occurs. Furthermore, as content area specialists call for greater integration among subjext that have historically been treated as discrete and unrelated, they also help render more permeable the walls between curriculum and instruction by suggesting that connections learners make naturally should be formalized in both curriulum design and instructional practice (Ackerman, 1989; Kyle, Abel & Shymansky,1992). It is our belief that this constructivist approach should not only be the subject of discussion in our course, but the model for how we teach the course.

The major focus of planning at this point was conceptualizing how to integrate all of the content areas in order to present them to students in a connected, continuous manner (Drake,1993). As the course has evolved over the last two years, this continues to be the foundation of course development. Pedagogical concepts are taught through activities which integrate content areas rather than through discrete content instruction.

III. Conceptual Foundation

In coursework prior to this course, TCs have focused on how children develop and learn. This course builds upon that knowledge and understanding support the development of their decision-making abilities regarding curriculum and assessment. The major concepts of this 12 hour course include:

A. Intelligence as a capacity to learn (Gardner,1991). Children's intelligence is seen as their abilities to create and adapt in a wide variety of ways, drawing on innate abilities and background knowledge outside of school as well as their school knowledge.

B. Diversity (Banks,1994). Children bring to school a variety of backgrounds: linguistic, ethnic/cultural, religious, gender, learning style, age.

C. Constructivism (Brooks & Brooks,1993). An approach to teaching based on the belief that children learn by doing, changing preexisting schema using new information acquired through varied experiences.

D. Integration (Drake,1993). Contrasting the notions that integration occurs in the mind of the child and that teachers integrate curriculum by explicitly making connections.
E. Holistic (Miller, Cassie and Drake,1990). The modeling of content instruction and assessment using a holistic perspective which supports integrated teaching/learning.
F. Inclusion (Sands, Kozleski and French, in press). TCs recognize the importance of identifying children's physical, affective, cognitive and communicative development and needs.
G. Technology as a tool (US Congress, 1995). TCs realize the potential for teaching/learning using all forms of technology available to them.
H. Collaboration (Pagach and Johnson,1995). Using the team approach to teaching this course we model collaboration. Through activities in which TCs engage in and evaluate their own collaboration they learn to work with peers as colleagues. These experiences prepare them for working with colleagues in schools and for teaching their own students to work together constructively.
I. Reflection (Posner,1989). As we are always in the process of becoming, always changing, we continually analyze what we do, and engage the TCs in analyzing what they are doing, for its impact on teaching and learning.

IV. Selected Course Activities to Build Knowledge and Understanding
Using a Gradual Release of Responsibility model (Pearson, 1985), course assignments and activities have been structured to model the links between curriculum development, instruction and assessment while at the same time allowing TCs to take an increasingly more active role in the development of these assignments. The following activities help to build knowledge and understanding of various pedagogical concepts and techniques.
A. iTE in the City
TCs are asked to gather information and develop a lesson based on their research of one particular section of the culture of the downtown urban community of which the university is a part. This lesson is presented to the entire class and a summary paper turned in.
B. Dinosaur Ridge
An extended classroom activity that allows for real life application of earth science, mathematics, social studies, expressive arts and literacy. It is a model of an integrated school day which occurs outside of the regular confines of a classroom.
C. Technology Pieces
Activities/assignments demonstrate and model the use of technology for research and presentation (video, overheads, graphs, etc.). In addition, TCs use various computer programs to create useful products and learn the potential of these programs for classroom instruction (HyperStudio, Kid Pix, Bilingual Writing Center, PiVIT)
D. Inquiry/Assessment Project
Focus is on individual assessment within a cooperative group assignment. TCs experienced working in a cooperative group in order to design an assessment procedure that is used to assess their individual performance in the group development of a thematic unit.

V. Selected Course Activities to Apply Knowledge and Understanding
The following activities allow TCs to apply curriculum content using their knowledge and understanding of various technologies pedagogical concepts and techniques in a more independent manner.
A. Plains Conservation Center Extended Classroom Activity
An extended classroom activity in which TCs, in small groups, research and plan an integrated day which includes instruction and assessment, based on the content of state history between 1850-1880 which is then presented in an authentic, 1800's outdoor environment.

B. Thematic Unit

TCs in self selected groups, choose topics, research the topics and develop instructional units using curriculum standards (state and professional organizations), district curriculum guides, up-to-date professional literature, informational adult and children's literature in the content area, various technologies, and an integrated, holistic, constructivist perspective.

VI. Course Outcomes

TCs come to understand what they believe about how children learn, understand the differences among children and how these impact learning, and as a result, develop curriculum, instruction and assessment that meet the needs of all their students.

Presentation Outline

I. Introductions - Chair

II. History and Background of Course Development

III. Overview of Conceptual Foundation

IV. Demonstration of Course Activities Designed to Build Knowledge and Understanding

V. Demonstration of Course Activities Designed for Application of Knowledge and Understanding

VI. Where We're Going From Here

VII. Open Discussion

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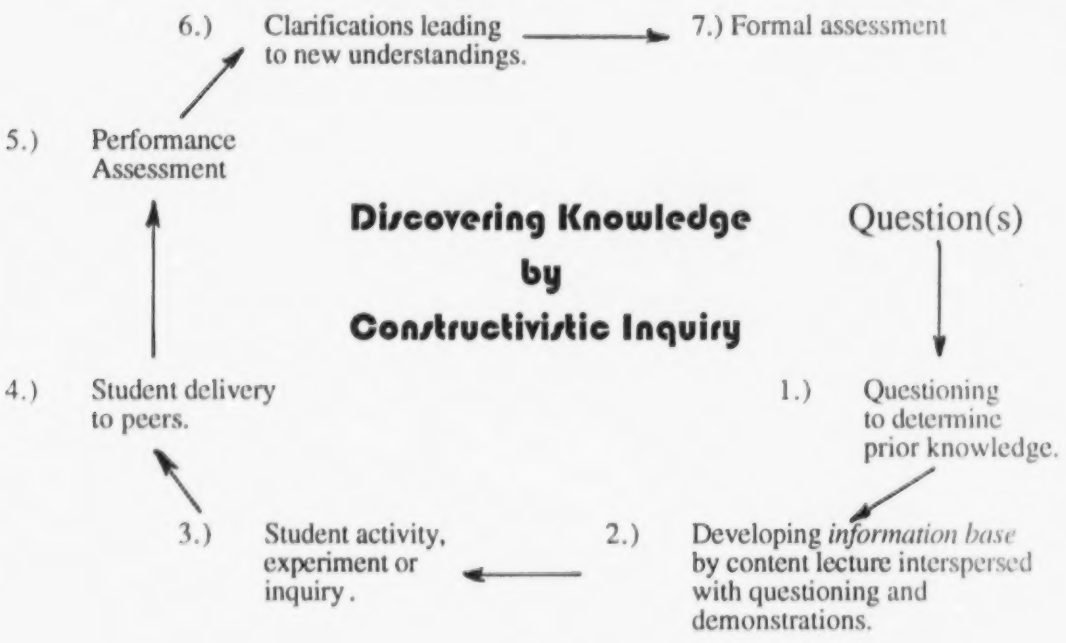
Teaching For Understanding


6.) Clarifications leading to new understandings.
7.) Formal assessment
5.) Performance Assessment
Discovering Knowledge by Constructivistic Inquiry
Question(s)
4.) Student delivery to peers.
1.) Questioning to determine prior knowledge.
3.) Student activity, experiment or inquiry.
2.) Developing *information base* by content lecture interspersed with questioning and demonstrations.

Methodology:	Inquiry Learning	Cooperative Groups	Discussion
	Honoring Peoples Struggle	Peer Learning	Investigation
	Embedded Assessment	Content Lecture	Inquiry
	Discrepant Event	Needs Assessment	Persistance
	Verbalizing Understanding	Teachable moments	Commitment
	Demonstrating Understanding	Questioning	Wait Time
	Answering Questions with Questions	Teacher Directed Learning	Student Directed Learning

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RESPONSIBILITIES OF TEACHERS

Scholar Instructor Student Advocate Professional Leader

Social Context

*Inclusion
*Multicultural
*Linguistic
*Personal Needs
*Classroom Management

Academics

*Scholarly Inquiry
*Content Knowledge
*Goals/Object.
*Standards

Instructional Strategies

Assessment/Evaluation Methodologies

Student Success

Independent Learners